Attorney Docket No. 13779-67 Page 9 of 13

Application No.: 10/581,109 Office Action Dated: May 24, 2010 Reply to Office Action Dated: August 19, 2010

## REMARKS

Claims 15, 18-22, and 27-36 are pending in the present application. Claim 18 has been amended. Support for the amendment to claim 18 can be found in the as-filed specification at page 7, lines 2 to 4. Accordingly, Applicants submit that no new matter is being added to the application. Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

## Rejections under 35 U.S.C. § 103

## I. Furch and Ragusa

Claims 15, 18-22, and 30-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Furch et al., EP 0604798 ("Furch") in view of Ragussa et al., Entomologia Hellenica, Vol. 12, 1994-1998, pp. 55-64, ("Ragusa"). Applicants respectfully traverse this rejection. Applicants submit that the combination of Furch and Ragusa does not teach or reasonably suggest methods of controlling non-crop pests, as recited in the instant claims.

Generally, independent claims 15, 18, 30, and 34 recite various methods of controlling non-crop pests with a pesticidally effective amount of a new non-crop pest control agent, i.e., a compound of formula I. More particularly, claim 15 recites a method for controlling *non-crop pests* comprising contacting the non-crop pests or food supply, habitat, breeding grounds or their locus with the compound of formula I, wherein the non-crop pests are selected from the group consisting of the orders Isoptera, Blattaria (Blattodea), Hymenoptera, Siphonaptera, and Parasitiformes. Amended claim 18 recites a method for the protection of non-living organic materials against non-crop pests, wherein the non-living organic materials are cellulose-containing non-living organic materials selected from the group consisting of wooden materials and paper. Claim 30 recites a method for the protection of animals against non-crop pests, wherein the non-crop pests are selected from the group consisting of the class Chilopoda and of the orders Araneida, Hemiptera, Phthiraptera, Siphonaptera, Parasitiformes and Acaridida. Lastly, claim 34 recites a bait composition which comprises the compound of formula I.

In contrast, Furch relates to plant protection in the agricultural field and discloses the insecticidal and acaricidal activity of N-arylhydrazine derivatives and other compounds against <u>crop</u> pests of the Coleoptera, Lepidoptera, and Acarina orders. Notably, these orders are not included in the listing of non-crop pests in claims 15 and 30. As admitted in the

Application No.: 10/581,109 Office Action Dated: May 24, 2010 Reply to Office Action Dated: August 19, 2010

Office Action, "Furch et al. differs from the instant claims insofar as it does not disclose the specifically claimed orders or superorders." OA, p. 3.

Further, Applicants submit that Furch is directed to a method for controlling <u>crop</u> pests rather than to a method for controlling <u>non-crop</u> pests, as recited in claims 15, 18, and 30. Furch states "[g]rowing or harvested crops may be protected from attack or infestation by insect or acarid pests by applying to the foliage of the crops, or to the soil or water in which they are growing, a pesticidally effective amount of a formula I N-arylhydrazine derivative. In practice ... the formula I compound ..., when applied to the plants or the soil or water in which they are growing, is effective to protect the plants from insect or acarina attack and infestation." P. 7, Il. 32-37. Further, "[a]ll compositions which lend themselves to soil, water, and foliage application and provide effective plant protection are suitable." P. 7, Il. 49-51.

As discussed in detail at pages 4 and 5 of the instant specification, activity of a compound against pests for plant protection in the agricultural field, i.e., against crop pests, does not generally suggest activity of the same compound against non-crop pests. Crop pest control is always a part of plant protection. In contrast, non-crop pest control relates to, for example, protection of non-living organic materials and public health. As understood by one of ordinary skill in the art, the properties of pesticides must be suitable for their specific use. Thus, systemic pesticides that are introduced into plant parts are suitable for controlling piercing-sucking or biting crop pests. However, these same pesticides cannot generally be expected to show equal activity against non-crop pests who do not feed on plant parts. Based on the foregoing, Applicants assert that there is no disclosure in Furch of controlling non-crop pests; much less the particular non-crop pests recited in claims 15 and 30.

With further regard to amended claim 18, Applicants submit that Furch fails to teach or suggest a method of protection of cellulose-containing non-living organic materials selected from the group consisting of wooden materials and paper, as recited in amended claim 18. As discussed above, Furch discloses a method of crop protection (e.g., protecting growing or harvested crops), but mentions nothing about protection of wooden materials and paper.

With further regard to claim 34, Furch fails to mention anything about a bait composition. Further, given that Furch is directed to protection of crop pests (i.e., pests that are controlled by treating crops that are eaten by the pests), one of ordinary skill in the art would have no reason to use the compounds disclosed in Furch as a bait composition.

Ragusa does not cure the defects of Furch that are discussed in detail above. Ragusa discloses survey results regarding phytoseiid mites associated with crops and wild plants on Lesvos Island. See, Abstract. The office action states "Ragus et al. [sic] differs from the instant claims insofar as it does not disclose a method for controlling non-crop pests." OA, p. 3. Further, Ragusa provides no disclosure with regard to bait compositions (claim 34) or with regard to wooden materials and paper (claim 30). Thus, based on the foregoing, Applicants submit that neither Furch nor Ragusa teaches or reasonably suggests a method for controlling non-crop pests. As such, the claimed methods (and bait composition of claim 34) are not obvious in view of the combination of Furch and Ragusa. Accordingly, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

## II. Yanagi and Furch

Claims 15, 18-22, and 27-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagi et al., U.S. 5,378,726 ("Yanagi") in view of Furch. Applicants respectfully traverse this rejection. Applicants submit that one of ordinary skill in the art would have no reason to combine the pesticidal compositions of Yanagi and Furch to form a third pesticidal composition. Further, even if the pesticide compositions of Yanagi and Furch were combined, the new pesticidal composition would not read on the composition of formula I. Additionally, neither Yanagi nor Furch teach protection of wooden materials and paper against non-crop pests as recited in amended claim 18.

Yanagi discloses a hydrazine derivative showing pesticidal activity against harmful pests which are resistant to known pesticides. *See*, Abstract. The disclosed compound is asserted to meet the demand for a compound having higher pesticidal activity without damaging useful insects and having a low toxicity to humans and animals. *See*, c. 1, ll. 27-29. The compound of Yanagi is represented by the following formula:

Application No.: 10/581,109 Office Action Dated: May 24, 2010 Reply to Office Action Dated: August 19, 2010

As discussed above, Furch relates to plant protection in the agricultural field and discloses the insecticidal and acaricidal activity of N-arylhydrazine derivatives (more specifically, amidrazones) and other compounds against crop pests.

Yanagi discloses that the hydrazine derivative thereof may be combinedly formulated with pyrethroids, organophosphates, carbamates, and synergists of pyrethrin. See, c. 9, ll. 54-66. However, there is no mention of combining the hydrazine derivatives of Yanagi with amidrazones, such as those disclosed in Furch, to form a new combined composition. Further, the compounds listed for potential combination are completely different from the amidrazones disclosed in Furch. Given the stated criteria for pesticidal compounds in Yanagi (i.e., to meet the demand for a compound having higher pesticidal activity without damaging useful insects and having a low toxicity to humans and animals) and a list of approved compounds for combination, one of ordinary skill in the art would have no reason to combine the hydrazine derivative of Yanagi with the amidrazone of Furch to formulate a new composition.

Further, even if the hydrazine derivative of Yanagi were combined with the amidrazone of Furch, the combined composition would not read on the compound of formula I. The compound of formula I comprises a single active compound. In contrast, any combined composition would comprise the hydrazine derivatives of Yanagi <u>and</u> the amidrazones of Furch. Thus, the combined composition would not read on the compound of formula I.

Further, any compound resulting from a structural modification to the compound of Yanagi, through combination with the compound of Furch or any other compound, would not read on the compound of formula I. The Yanagi compound has an acetahydrazide group attached to the phenyl ring thereof via a carbonyl group. Thus, any structurally-modified compound of Yanagi would include the acetahydrazide group of Yanagi. In contrast, the compound of formula I of the present application has no such acetahydrazide group attached to the phenyl ring thereof via a carbonyl group. As such, any compound resulting from a structural modification to the compound of Yanagi would not read on the compound of formula I of the current claims.

Additionally, as mentioned above, neither Yanagi nor Furch teach or reasonably suggest the method of amended claim 18, wherein the non-living organic materials being

Attorney Docket No. 13779-67 Page 13 of 13

Application No.: 10/581,109 Office Action Dated: May 24, 2010

Reply to Office Action Dated: August 19, 2010

protected from non-crop pests are cellulose-containing non-living organic materials selected from the group consisting of wooden materials and paper.

Based on the foregoing, Applicants submit that claims 15, 18-22, and 27-36 are not obvious in view of the combination of Yanagi and Furch. Accordingly, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

For the foregoing reasons, claims 15, 18-22, and 27-36 are considered allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

Date: \$\\\/19\\/0

Allyn B. Rhodes

Registration No. 56,745

2801 Slater Road, Suite 120 Morrisville, NC 27560-8477

Phone: 919.481.1111

785346v1